

Roll No.

[illegible]

Total No. of Pages : 02

Total No. of Questions : 07

BCA (2011 & Onward) (Sem.-4)

OPERATING SYSTEM

Subject Code : BSBC-403

Paper ID : [B0242]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and a student has to attempt any FOUR questions.**

SECTION-A

1) Write briefly :

- a) Define Process. What are different process states?
- b) List the names of operating systems that support multithreading.
- c) Differentiate between preemptive and non-preemptive scheduling.
- d) Define critical section.
- e) Explain dynamic loading.
- f) Logical versus physical address space.
- g) Why is file protection necessary?
- h) What is firewall?
- i) Explain the concept of thrashing.
- j) Write short note on socket.

SECTION-B

- 2)
 - a) What is Operating System? Explain various functions of operating system.
 - b) Differentiate between multiprogramming and multiprocessing operating system.
- 3) Explain any two classical problems of synchronization.
- 4) What is CPU scheduling? Explain various scheduling algorithms with relevant example.
- 5) What is paging? How it is different from segmentation? Also explain hardware support for paging.
- 6) What is file? What are different types of file? Explain various file access methods.
- 7) Explain the following :
 - a) Virtual memory
 - b) Demand Paging